

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A diagnostic imaging apparatus comprising:

a position-of-interest determination unit which determines a plurality of positions in a plurality of images of a predetermined part of an object which are taken during movement of the predetermined part, to be positions of interest in the plurality of images, where the plurality of positions in the plurality of images correspond to a predetermined position in the predetermined part;

a characteristic-quantity calculation unit which calculates a characteristic quantity indicating a positional relationship between the positions of interest in the plurality of images;

and

an automatic diagnosis unit which outputs information on said predetermined part of said object, based on said characteristic quantity.
2. (canceled).
3. (original): A diagnostic imaging apparatus according to claim 1, wherein said predetermined part is a joint of a human body.
4. (canceled).

5. (original): A diagnostic imaging apparatus according to claim 1, wherein said plurality of images are a plurality of radiographic images which are taken by applying radiation to said predetermined part during the movement of the predetermined part.

6. (currently amended): A diagnostic imaging apparatus according to claim [[4]]3, wherein a marker is attached to said predetermined part, said plurality of images are a plurality of radiographic images, and said position-of-interest determination unit determines positions of images of said marker to be said positions of interest, where said images of the marker are respectively formed in said plurality of radiographic images by radiation which has passed through the marker.

7. (original): A diagnostic imaging apparatus according to claim 5, wherein said plurality of radiographic images are taken by using a solid-state radiation detector which generates and stores electric charges when the solid-state radiation detector is irradiated with radiation.

8. (original): A diagnostic imaging apparatus according to claim 6, wherein said plurality of radiographic images are taken by using a solid-state radiation detector which generates and stores electric charges when the solid-state radiation detector is irradiated with radiation.

9. (previously presented): The diagnostic imaging apparatus according to claim 1, wherein at least three images are taken during the movement of the predetermined part.

10. (previously presented): The diagnostic imaging apparatus according to claim 1, wherein the diagnostic imaging apparatus is an automatic diagnostic imaging apparatus.

11. (previously presented): the diagnostic imaging apparatus according to claim 1, wherein the diagnostic imaging apparatus is a radiographic imaging apparatus.

12. (currently amended): The diagnostic imaging apparatus according to claim 1, wherein the information comprises at least one of information indicating whether the predetermined part is normal, information indicating a degree of abnormality of the predetermined part, and the characteristic quantity.

13. (previously presented): The diagnostic imaging apparatus according to claim 1, wherein the plurality of images of the predetermined part of the object are taken during movement through at least three positions of the predetermined part.

14. (new): The diagnostic imaging apparatus according to claim 1, wherein the positions of interest are determined after the plurality of images are obtained.

15. (new): The diagnostic imaging apparatus according to claim 1, wherein the automatic diagnosis unit compares the calculated characteristic quantity with a previously stored characteristic quantity for a normal predetermined part and a previously stored characteristic quantity for a diseased predetermined part.

16. (new): The diagnostic imaging apparatus according to claim 15, wherein the automatic diagnosis unit outputs information indicating that the predetermined part is normal when the calculated characteristic quantity is close to the characteristic quantity for a normal predetermined part, and the automatic diagnosis unit outputs information indicating that the predetermined part is diseased when the calculated characteristic quantity is close to the characteristic quantity for a diseased predetermined part.

17. (new): The diagnostic imaging apparatus according to claim 5, wherein the plurality of images of the predetermined part of the object are taken during movement through at least three positions of the predetermined part.

18. (new): The diagnostic imaging apparatus according to claim 17, wherein the automatic diagnosis unit compares the calculated characteristic quantity with a previously stored characteristic quantity for a normal predetermined part and a previously stored characteristic quantity for a diseased predetermined part.

19. (new): The diagnostic imaging apparatus according to claim 18, wherein the automatic diagnosis unit outputs information indicating that the predetermined part is normal when the calculated characteristic quantity is close to the characteristic quantity for a normal predetermined part, and the automatic diagnosis unit outputs information indicating that the predetermined part is diseased when the calculated characteristic quantity is close to the characteristic quantity for a diseased predetermined part.

20. (new): The diagnostic imaging apparatus according to claim 1, wherein the plurality of images are taken during a single sitting.

21. (new): The diagnostic imaging apparatus according to claim 17, wherein the plurality of images are obtained at intervals of 0.5 micrometers of movement by the predetermined part.